

Title (en)
AC TO DC CONVERTER

Title (de)
WECHSELSTROM-GLEICHSTROM-WANDLER

Title (fr)
CONVERTISSEUR CA-CC

Publication
EP 4118936 A1 20230118 (EN)

Application
EP 20924746 A 20200721

Priority
• US 2020042896 W 20200721
• US 202062987045 P 20200309

Abstract (en)
[origin: WO2021183172A1] An AC to DC conversion system is described. The conversion system consists of an electronic switch and control circuitry employed to provide controlled pulsed power to a storage device that provides power to a load at either a preselected or manually or automatic selectable voltages while ensuring the voltage drop across the switch is minimized to reduce power dissipated through the switch itself, thereby significantly increasing the efficiency and reducing thermal losses. The AC to DC converter in one minimal version consists of a pair of N-MOSFET transistors, a voltage divider, a storage element and a pair of diodes. The design enables high efficiency with minimal components that may be fully integrated onto silicon.

IPC 8 full level
H05B 39/04 (2006.01)

CPC (source: EP KR US)
H02M 1/0003 (2021.05 - KR US); **H02M 1/0058** (2021.05 - KR); **H02M 1/08** (2013.01 - US); **H02M 1/32** (2013.01 - US);
H02M 7/217 (2013.01 - KR US); **H02M 7/2176** (2013.01 - EP); **H02M 1/0045** (2021.05 - EP); **Y02B 70/10** (2013.01 - KR)

Designated contracting state (EPC)
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Designated extension state (EPC)
BA ME

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
WO 2021183172 A1 20210916; CN 115245050 A 20221025; EP 4118936 A1 20230118; EP 4118936 A4 20240403; JP 2023516984 A 20230421;
KR 20220145886 A 20221031; US 12095383 B2 20240917; US 2023067227 A1 20230302

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US 2020042896 W 20200721; CN 202080098214 A 20200721; EP 20924746 A 20200721; JP 2022552430 A 20200721;
KR 20227033198 A 20200721; US 202017904437 A 20200721